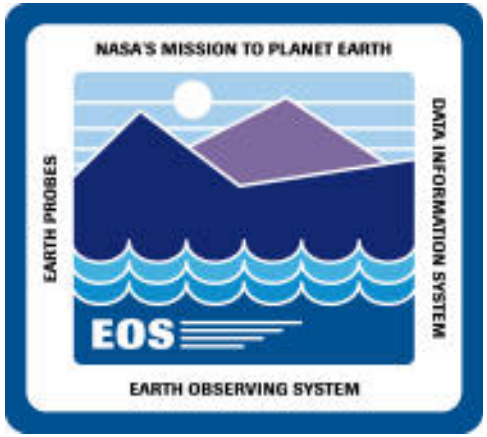

Release B Test Program

Teraisa Patterson

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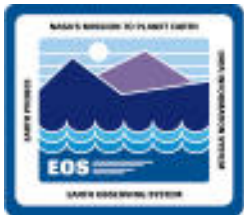
2 November 1995

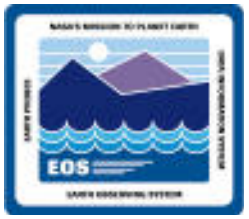
Verification Goals



Field a Working ECS That:

- **Satisfies Baselined Requirements**
- **Uses Representative Sample of Real Data to Support Testing**
- **Follows Formalized Testing Approach**
  - **Continue Build/Thread Methodology test approach.**
  - **IR1 is using the Build/Thread Methodology and is close to completion with good results.**
  - **User/OPS Scenarios is the approach for Acceptance Testing.**

ECS Roles and Responsibilities

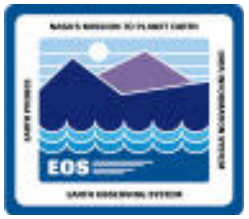


ECS

Design Development Code and Unit Test (at EDF)	Segment/System Test (at EDF)	IATO Acceptance Test (at Sites)
• Develop CSCs/CSUs • Integrate COTS, GFE and Heritage • Inspections and Demos • Conduct Tests Utilizing Test Tools, Simulators, and Stubs	• Use Build/Thread Methodology for I&T of Formal/Informal Track Design CSCs/CSUs • Level 4 Requirements Verification at EDF • Level 3 Requirements Verification at EDF • Conduct Test Utilizing Simulators and Test Data (Including; Science TDSs) • Develop ECS I&T Detailed Test Plans/Procedures	• Use Ops Scenario Test Methodology • Level 3 Requirements Verification at Operational Sites • Conduct I/F Tests with Operational/Development Systems if Available; Otherwise Simulations and Test Data (including Science TDSs) • Develop AT Detailed ECS Test Plans/Procedures)
ECS Release Developers Team • I&T • QA, CM, DM	**ECS I&T Team** • Developers • IATO • IV&V • QA, CM, DM	**ECS CATs Team** • DAACs • O&M • Developers • I&T • QA, CM, DM • IV&V

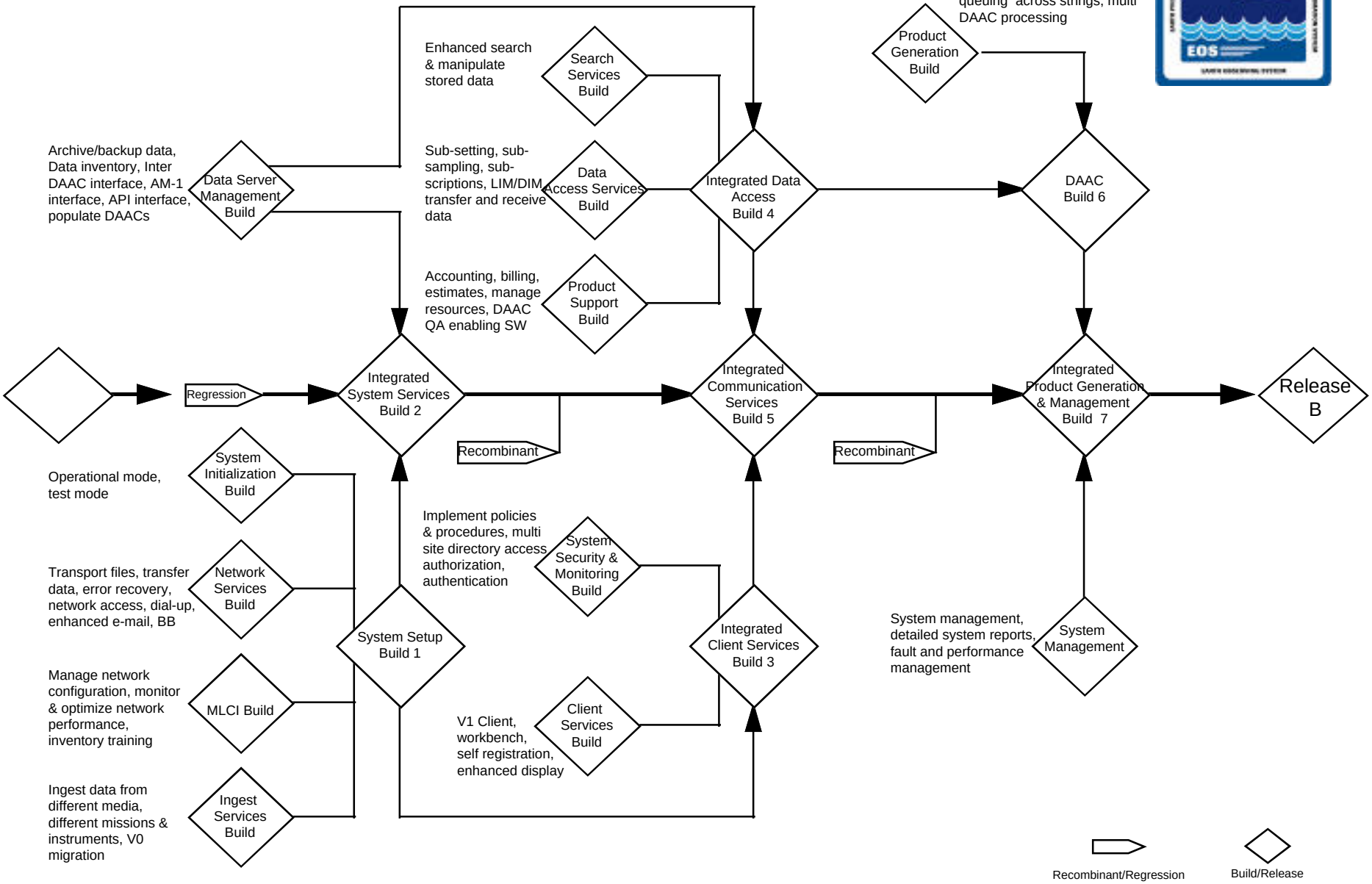
ECS Internal Product Turnovers → TRR → ETR → CSR → RRR and ECS Release Delivery

Rel B SDPS/CSMS Test Objectives



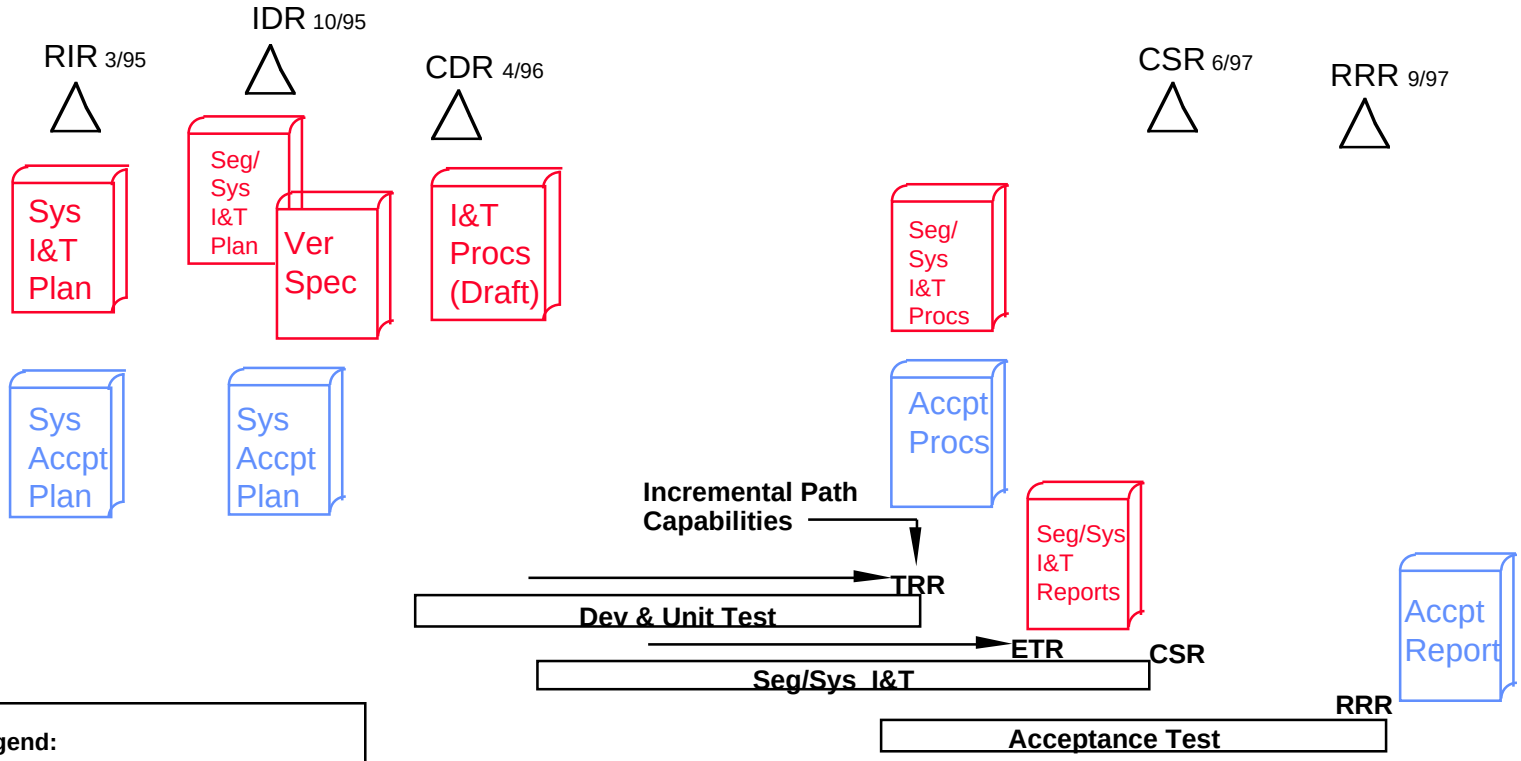
- **To verify ECS System Operations to Include:**
  - **Data Ingest and Validation**
  - **On-Demand Production**
  - **Accounting and Billing**
  - **Client/User System Access**
  - **LIM and DIM**
  - **SMC Security**
  - **Fault and Performance Management**
  - **System Operability**
  - **Multi-DAAC Planning and Scheduling**
  - **Management Logistics**
  - **Release A Regression Testing**

Release B System Build Plan



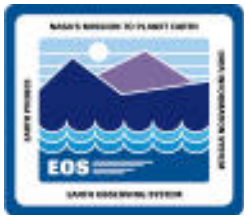
Rel B Status - Roadmap

Milestones



Legend:
CDR Critical Design Review
CSR Consent to Ship Review
ETR Element Test Review
RIR Release Initiation Review
RRR Release Readiness Review
TRR Test Readiness Review
I&T - Red IATO - Blue

Acceptance Testing



The Overall System Acceptance Test for the Release B is the final development contractor test activity. The activity verifies the function and performance of the ECS release against the Level 3 requirements.

- **Lead by the Independent Acceptance Test Organization (IATO)**
- **Performed at the Release B DAACs (GSFC, MSFC, LaRC, EDC, NSIDC, ASF, JPL, ORNL), the SMC and the EOC**
- **Consent to Ship Review (CSR) and Segment Operational Readiness Review (SORR) are the entry events**
- **RRR is the completion event**
- **Details of the Acceptance Process Documented in The Acceptance Test Management Plan (ATMP) DID 415 submitted at SDR (available on the EDHS)**